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ABSTRACT

Since the Catholic leadership in the United States is convinced that television can be the tool for revitalizing education, they commissioned a study to determine the best way to use the medium. Nine dioceses are already using instructional television fixed service (ITFS) distribution systems. The uses of ITFS are listed, and the ITFS system is compared with five others: commercial television, cable television, microwave transmission, cassettes and cartridge television, and the "tele-cyclopedia" concept of transmission. The comparison suggests that although 50 dioceses could profitably use the ITFS system, no one system is the best for every diocese. The study concludes that each diocese should secure access to cable television, cable programming, and the ITFS portion of the wave band. The creation of a diocesan learning network is also suggested. The need for each diocese to examine its educational posture with respect to television is stressed. (JK)

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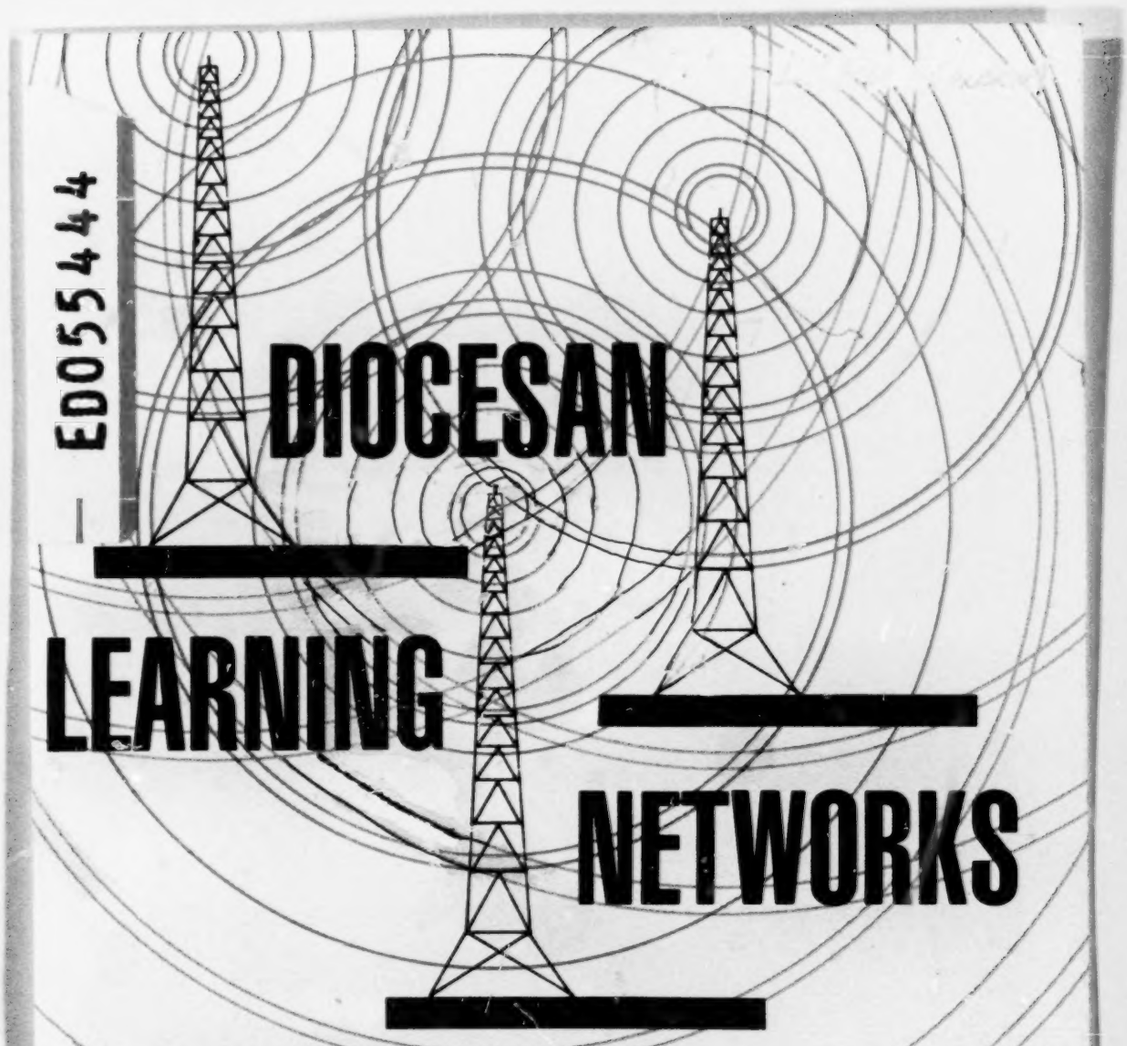

DIOCESAN LEARNING NETWORKS

Alternatives and Opportunities in Instructional Television

by
H. GILES SCHMID, Ph.D.

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UNITED STATES CATHOLIC CONFERENCE

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Chapter I
Introduction

The ten Bishops and ten non-episcopal members of the Committee on Education of the United States Catholic Conference have discussed the potential of television for all the Church's efforts in education. Not only are they convinced that this medium will make a great impact on education, but it can also serve as the tool around which a renewal and revitalization of educational programs will take place. Hence, by resolution, they called for a study to be made for the chief educational officials of the dioceses throughout the United States.

The research began with a review of the nine dioceses which have their own television stations employing the ITFS (Instructional Television Fixed Service) distribution systems. These dioceses are: Boston, Brooklyn, Detroit, Los Angeles, Miami, Milwaukee, New York, Rockville Centre, and San Francisco. The ITFS system is well documented in the EPIE Occasional paper #31 "Instructional Fixed Service" and in a NEA publication, "ITFS Instructional Television Fixed Service—What it is . . . How to Plan." Appendix A contains an excellent narrative of ITFS possibilities in a diocese. Appendix B is an extended checklist of potential services this system can provide a parish priest.

In the attempt to put ITFS into perspective, five other delivery systems were studied and a model was developed within which a diocese could design a learning network. The components, opportunities and alternatives, are presented in Chapter III of this report.

Several surveys are combined in Appendix F to: (a) illustrate the extensive diocesan involvement in media, (b) to highlight the fact that diocesan offices in both education and communications have an overlapping concern in media, and (c) to underscore advantages that would accrue to a diocese if there were greater collaboration between these offices.

The research uncovered four issues that require prompt attention: (1) an ITFS issue, (2) a cable legislation issue, (3) a cable

programming issue, and (4) the need for a diocesan plan for the effective utilization of media.

An ITFS Issue. The first issue is the pending decision of the Federal Communications Commission which may deprive dioceses access to the ITFS portion of the wave band formerly reserved for education. This decision will probably be made in 1971. This is a natural resource which, if lost, will never again be available.

Cable Legislation. The second issue is cable television legislation which is rapidly being written in every city in the nation. The potential of cable television is enormous. But the Church may lose much of this potential unless it actively participates in the municipal legislation which grants an exclusive franchise to the cable operator. There is no national regulation of this legislation. Each municipality or city government enacts legislation which specifies the conditions under which a cable company may operate. These conditions will be in force for the next 15 to 30 years. Often education is given private channels, free hook-ups, and even equipment *if* the legislation requires this as a public service. It is imperative that diocesan officials be informed of these developments and (a) secure equal access to the cable, and (b) participate in the control of this resource with the public schools. NEA has an excellent publication on this, "Schools and Cable Television."

Cable Programming. Thirdly, some cable television operators have already secured the exclusive franchise. But in their infancy they need help in securing local programs as required by the FCC April 1, 1971. The diocese can secure favorable support if they assist these operators now when they need programs and ideas for the creation of local programming.

Plan for the Diocese. Finally, this report concludes with guidelines on how to initiate a study for the creation of a diocesan learning network to serve the total teaching mission of the Church. The Department of Education of the USCC stands ready and willing to assist the dioceses on any of these four issues. The greatest loss will occur if action is delayed.

There is only one note of caution in discussing media, teaching and technology. Underlying all this effort is the simple goal that Jesus Christ come alive to the people of God. Books, film, hardware or software should not become instruments behind

which teachers and potential teachers hide their personal commitment to Jesus.

The best medium in which the Gospel message is communicated is through the life witness of another person. All else is a secondary support. Schools, CCD, youth and adult education programs, as well as television, are only occasions to bring the living faith of one person to another. It is in the living community of faithful that the Spirit breathes the life "which no man can take from you."

When it is properly considered and understood, television and an appropriate learning network can provide a mass communications vehicle through which the best among us can speak. It can also give confidence to the timid, that they too may speak their testimony of God.

The Second Vatican Council recognized that media has the capability of multiplying our arms and voices infinitely. In its document on Communications:

> "The Catholic Church has been commissioned by the Lord Christ to bring salvation to every man, and is consequently bound to proclaim the gospel. Hence she judges it part of her duty to preach the news of redemption with the aid of the instruments of social communication, and to instruct mankind as well in their worthy use.
>
> Therefore the Church claims as a birthright the use and possession of all instruments of this kind which are necessary or useful for the formation of Christians and for every activity undertaken on behalf of man's salvation."

It also gave local directives to dioceses:

> "Bishops in their own dioceses have the duty to oversee activities and enterprises of this kind, to promote them, and to regulate them insofar as they affect the apostolate in a public manner.
>
> A successful apostolate for an entire nation calls for unity of planning and effort. Hence this Sacred Council decrees and directs that national offices be everywhere established and thoroughly supported for affairs of the press, motion pictures, radio and television."

Other trends and events which are treated in this report are:

1. The proven 2 to 5 years experience of nine dioceses which have their own educational television facilities;
2. The proven low costs to deliver quality educational materials to an entire diocese via television;
3. The new round of technological advances which are on the horizon, such as cable TV, cassettes, and cartridge TV, etc;
4. The proven effectiveness of television programming in the area of education—an accumulation of 20 years of effort;
5. The substantial evidence that printed media are no longer the primary media in our society;
6. The increasingly felt need to revitalize and expand the Church's educational effort in schools, CCD, adult and youth programs and the emerging concept of a diocesan learning network which includes but is not limited to schools.

The effort of this report will be to present a model for a diocesan learning network in order to facilitate a clearer vision of what is possible in bringing the force of television to the service of the Church. In the second chapter some distinction will be made, key thoughts on effective employment of television will be presented, and then the model for a diocesan learning network will be sketched along with a notion of the costs involved.

In Chapter III the components, functions and alternatives available for the design of a learning network will be elaborated. The report will conclude with a chapter on "What needs to be done." Appendices A through E exhibit ITFS proposals, some of which apply to any television delivery system.

The author is grateful for the assistance and advice received from Fr. Michael Dempsey, Brooklyn; Fr. Pierre DuMaine, San Francisco; Mr. Frank Ryan, Rockville Centre; Fr. Patrick Farrell and Dr. Robert Pirsein, Chicago; Fr. Gail Poynter, Cincinnati; Fr. Robert Nygaard and Sr. Jean Smiset, O.F.B., St. Paul; Fr. Casimir Pugevicius, Baltimore; Mr. Charles Reilly, USCC; Bishop Raymond Lucker, USCC, and many others. However, the content of the report must be the responsibility of the author.

Chapter II

Instructional Television—Concepts and Principles

In this chapter three kinds of television programming are presented to distinguish between the traditional responsibilities of an office of radio and television and an educational office's use of television. Next, three principles on the use of television in education will be developed. Six suggested ways of using television in the instructional setting are listed, and then an outline of the components of a diocesan learning network will be presented. Finally a brief discussion of the costs of television will be introduced.

Entertaining, Influential, and Instructional Television. It is useful to distinguish three kinds of television programming. This positions the effort of the Departments of Communications and Education of the USCC, and their counterparts in dioceses.

The television with which most people are familiar is the entertainment programming of the public commercial TV stations. This needs no elaboration.

Influential television consists of the programs or short spots which are seen on commercial and educational television stations. These provide information, insight, and motivational messages. They are the programs which we wish everyone would see. They are usually self-contained and rarely viewed in sequence. Educators are particularly impressed with the capability of television to carry both intellectual and emotional content. It shares with the medium of the film the potential to carry and transmit a fuller human experience. It makes ideas and understandings come alive for the viewer. The printed word carries a verbal message, a symbolic message. Radio carries the spoken word. Film and television carry both plus human drama—a fuller message.

A third kind of programming is instructional television which is planned as a sequence of programs which have instructional guides and plans to facilitate a more thorough understanding and

involvement by an organized viewing audience. The programs are of varying length, from 2 minute single concepts, 5 minute discussion starters, to 20 minute lessons. Essentially the program is an element of a planned curriculum. This type of television programming is found more on the educational channels and closed circuit television. It is aimed at an organized audience, a class or discussion group.

Influential television and the public media are more properly the target area of the Department of Communications of the USCC with its divisions for (1) News Service, (2) Motion Pictures, (3) Radio and Television, and (4) Public Information. This department's diocesan counterparts are found in the form of a Diocesan newspaper, Information, Public Relations, Radio and Television, or Media office. In addition to promoting information and sound public relations for the Church in these media, these offices also work to gain acceptance of motivational and attitudinal programs on public networks.

Instructional television is more properly the target area of the Department of Education of the USCC with its Divisions for (1) Elementary and Secondary Education, (2) Religious Education—CCD, (3) Youth Groups, (4) Ministry to Higher Education, (5) Adult Education, and (6) Research in Religious Education. This department's diocesan counterparts may be the Office of Education, offices of the same title as above, and may include the work of seminaries, educational media centers, vocations and liturgy.

There is no intent to draw lines here of strict jurisdiction, the intention is to alert the reader that in a particular diocese there is more than one office concerned with television. Where an office of television exists, that particular office may be devoted to either influential or instructional television when in fact there is need in both areas of television. Finally, both offices have much to offer to one another for much influential material is very useful for instruction and vice-versa.

It is not suggested that these offices be combined for the communication office typically has developed excellent relations and expertise in working with commercial and public media. This expertise should not be swallowed up in the demanding and absorbing work of curriculum design and the planning of the sequential instructional efforts. By and large school offices do not have these working relations with the public media, and public

media people do not have the expertise and background required by learning sequences. If the respective expertise is honored, great good can come from timely cooperation and collaboration.

Principles for the effective employment of television. The flexibility of television is proving to be limited only by the imagination of the user. On the other hand, television is not a panacea, nor is it just another audio-visual device. Still less is it a suitable substitute for teachers and good teaching.

One golden rule of instructional television is never to use it except where it fills a vacuum of need, and then always use it professionally. Need identification is the first step, and it is suggested that in the beginning users look to the things they cannot now do. If properly employed, television should be one part of a team effort, one component in the educational system. History seems to bear out that to create permanent change, technology must (1) introduce the change, and (2) support the change while it is incorporated into a way of life and thinking.

What are the things a diocese cannot now do? This the reader must answer for himself. But in answering this fundamental question it is suggested that television be viewed in the context of a communications system, a learning network, a multipurpose system with diocesan-wide coverage. See especially Appendices A and B.

Some dioceses may wish to employ television to support a revitalization of their schools. Some school systems have justified a closed circuit network for a reading program; others for a wider language arts and skills effort which was not able to be done with conventional teaching methods. Some dioceses are thinking of some new way to strengthen CCD instruction.

In both school and CCD the observation of Charles A. Siepmann in the *Educational Television Journal* illustrates a team approach with television.

> "Teaching, whether in a large class, a seminar, or at opposite ends of a log, involves two intimately related processes. The first is *exposition*, the imparting of knowledge, and the stimulation of ideas related to that knowledge and (always) to life. Most of us overlook the fact that this is quite a job. . .

The second is *evocation,* meaning to get a child (or a college student for that matter) to respond to the knowledge and ideas that you've stimulated in terms relevant to him; to help him get his bearings (by verbal reaction and by interaction with his fellow students) within the ever-widening horizons that you've opened up. This involves a teaching skill quite different from, and as important as, that of exposition. Few teachers combine both skills—or should be expected to."

It is suggested that television, with all the care that goes into production, specialize in exposition, and that the teacher, a living example of faith, specialize in the process of evocation.

Others suggest that the drama potential of television can make a great contribution to this process of evocation—making religion come alive—under the guidance of a living embodiment of faith.

Reasons for Instructional Television. John A. Montgomery cites three factors in the same journal which are a part of any rationale for using television in the instructional process.

"1. To provide simultaneously broad and worthwhile experience possibilities that would not otherwise be available for a large number of classes due to the scarcity or cost of resources, the necessary preparation time, and/or lack of classroom teacher skill.
2. To focus on relevant elements of the educational process, such as skill building, attitude formation, growth in appreciation, or concept development.
3. To build a logical, skeletal framework in a sequence of related lessons which allows for maximum flexibility on the part of the classroom teacher."

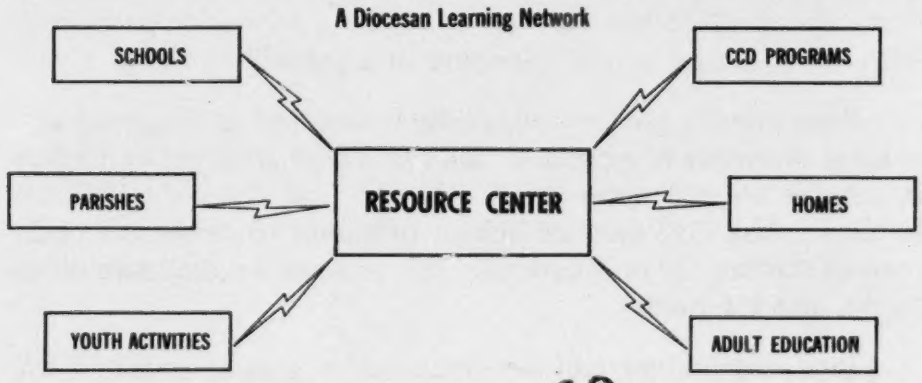
In the adult education area, with its wide variety of programs, some of the above factors in a design may be useful. Some dioceses are producing discussion starters, five to ten minute shows, and the documentary show to set the background for a series of discussion or community action programs.

The above is not exhaustive but merely intended to stimulate thinking on what are the real needs which a multi-program vehicle such as television can fulfill. Whatever the diocesan needs, and whatever the chosen objectives, the selection of a delivery system then follows.

Six ways of employing instructional television. To further enable the reader to envisage the great flexibility of television, the following are presented:

1. Programming is used as supplementary and enrichment material, similar to the current use of audio-visuals but, as the nine dioceses have found, more convenient and more extensively utilized.
2. Programming is used as complementary but direct instruction. The classroom teacher sets the pace and direction of the course but this programming provides the student with a different style and treatment of the subject matter.
3. Programming becomes the major resource, replacing the textbook.
4. Student productions are a learning process and an expression of their integration of what has been learned.
5. Programming is, or presents, a master teacher, the classroom teacher becomes a paraprofessional supervisor.
6. In a few instances the programming provides total teaching service, a classroom teacher is not required.

The Diocesan Learning Network. Having briefly considered the possibilities of television programming the components of a network are sketched to illustrate the alternatives. The learning network is a modification of the basic concepts operating in many diocesan systems that have a diocesan center serving parishes and schools. There are two elaborations. First, with the introduction



of technology greater attention must be given to an intermediary component—the delivery system. The second deals with the planned scope of services to be provided.

The paradigm below has three components (1) the resource center, (2) the delivery system, and (3) the neighborhood center. The scope of services to be offered must follow diocesan vision of the total education mission of the Church in relation to needs and resources.

Resource Center Functions	Delivery System Alternatives	Neighborhood Center Functions & Alternatives
1. Materials— locate order schedule evaluate produce	1. Commercial TV 2. Educational TV 3. Cable TV 4. ITFS 5. Cassettes 6. Tele-Cyclopedia 7. Mail Delivery	1. Assist teachers and leaders of parish or school 2. TV sets Video Recorder (VTR) Portable VTR and set for multiple room use School wired for closed circuit 3. Curriculum consultant
2. Assist local coordinators		
3. Maintain equipment and Production Studio		

The reader is encouraged to visualize the many different designs possible with the above components. For example, at a minimum the resource center could be a single person assisting parish coordinators in locating and evaluating materials. The delivery system could be the mail. The neighborhood center could be the parish director of religious education.

The learning network could become more complex. The regional center could be a library with expertise and equipment to produce audio-visuals or video tapes. The tapes could be delivered via mail to cable operators and schools for re-distribution. The neighborhood center could be a school or parish hall with either closed circuit television or a portable VTR on a cart.

Progressively greater complexity is required as the range and volume of service is increased. Dioceses with ITFS feel that VTR's in schools are not necessary due to the four channels available to them. Also ITFS systems deliver programs to cable and commercial stations for re-broadcast. This enables the diocesan office to get into the homes.

Each component will be discussed in greater detail in the next chapter.

The Cost of Television. A brief discussion at this point is in order for educational television advocates continually speak of pennies per lesson while budget in the neighborhood of $100,000 to a million dollars. This is explained by the principle of Economics of Scale.

Sesame Street cost in excess of eight million dollars to produce, yet it cost the nation less than a penny per child per lesson because it reached over seventeen million children. The most widely used religious educational program is "Davie and Goliath." It cost the Lutherans millions of dollars to produce, yet dioceses rent and deliver this series at less than 5¢ per lesson per child. A CCD teacher may rent 3 films for a 12-week course for $15 to $20 per film. With 15 children in the class this costs more than $1.00 per child per lesson, while Brooklyn provides this same service at less than 2¢ per child per lesson. It is the large number of potential viewers which makes television relatively inexpensive.

If a diocese has a reasonably well developed school system, it is probably spending as much on audio visual material as an elaborate diocesan television system. A recent survey in one archdiocese indicated that in one year the high schools alone spent in excess of $100,000 just on film rental. The nine dioceses with ITFS are reaching 9,800 classrooms, 842,000 students, with an annual operating budget of $1,800,000. This averages $200,000 per year for an entire TV network. (See Appendix C)

If a school could be designed to serve both the parochial and public school child in addition to youth activities and adult education programs, this would indeed merit your consideration. What is being investigated is just such a facility.

We are considering an educational facility to serve an entire diocese at the cost equal to one school. The opportunity here is to revitalize our existing schools in addition to strengthening CCD, parish youth and adult education programs.

Chapter III

Opportunities and Alternatives of a Diocesan Learning Network

In this section of the report the components, functions and alternatives of the diocesan learning network will be elaborated. A major portion is devoted to alternative delivery systems to give the reader a clearer idea of what nine dioceses have chosen. ITFS is not a total package, it is one of several alternatives chosen for specific reasons. The nine dioceses do not have identical networks, rather a network suited to their needs and problems. See Appendix C. The reader will see how each component, Neighborhood Center, Regional Center, and the Delivery System must be designed to solve his problems given his present situation and resources. Finally, each component will begin and end with the recommendation for a need assessment.

The Neighborhood Center. The neighborhood center is the focal point of all designing and planning within the learning network. All services must key onto the question: what activity is desired in the learning center? Previously, it was indicated that the neighborhood learning center could be easily the parish or the school. Great changes in utilization of these facilities will occur along with altering emphasis in the educational programs. However, the prophets of the demise of the schools and parishes are incorrect. Certainly the programs and methods will alter with the changing needs of the people. But so long as there are homes and neighborhoods, there will be neighborhood centers for education requiring multi-media services. The task is to prepare the schools and parishes for alternative educational programs employing reasonably low cost media.

Therefore, depending on the philosophy and operating procedures of the network, the neighborhood center is the first component that should be designed. The following is only suggestive of the types of things that could go on within the neighborhood center.

The key to the neighborhood center is a coordinator to work with teachers and discussion leaders. Teachers need support and direction. If a regional center is well organized, the local coordinator need only work with a diocesan catalog for materials. The qualifications of this neighborhood coordinator would depend largely on how much service will be given to teachers, group leaders and to other parish activities.

A second function of the coordinator would be to assist these teachers and leaders in using the equipment. In addition to scheduling their use, the coordinator would also be responsible for repairs.

The equipment required at each school and parish will depend on the delivery system employed. Generally, in addition to the TV sets a video tape recorder (VTR) is most useful. A VTR is basically a tape recorder that carries the picture as well as the sound. The tape is reusable as with audio tape recorders. Some schools are wired to have close circuit television—just like the old public address systems. In other schools the TV set is mounted on a cart so that one set can serve several classrooms. This type of mobility is more adaptable to CCD and adult education programs which may not wish to meet in a typical classroom setting.

The neighborhood center coordinator could take on added responsibilities of becoming a curriculum consultant. In such an instance, however, he will be more qualified than one who would confine himself or herself to ordering materials and keeping equipment in working repair. In the nine dioceses with a television system the school coordinator is a part-time task.

Regional Centers. The concept of a regional (or diocesan) center is not new. There is a school superintendent's office, possibly a curriculum staff as well as audio visual centers for both schools and CCD programs. In the past few months there seems to be a trend for the development of diocesan media centers. As of this writing there is no known complete list of them. These may or may not include the services of the typical audio visual center. The newer services include: (1) cataloging or actual librarying of video tapes, (2) the creation of religious and adult education discussion starters, (3) systematic distribution of overhead transparencies of high quality, (4) a library of highly specialized religious educational or methods journals with zerox facilities for distributing the better articles, and (5) training facilities for

teachers in creating the new low cost film strips and super 8 motion pictures.

There is increasing concern that intellectual formation be accompanied with affective (emotional) formation. If an attitude is defined as an idea supported by feelings for that idea, then we are speaking of convictions that become operative in life. It is held that if students are enabled to create film in addition to writing compositions, then the student is given more opportunity to express feeling as well as ideas. If multi-media is necessary for the effective communication of the message of the Church, students too should be given opportunities to express their learnings in various media. For in addition to knowledge of doctrine this message must come alive for the student. The new techniques in making slides, film strips, and super 8 motion pictures are sufficiently low cost to make this feasible. However, teachers do need training and guidance.

Generally, however, the regional resource center would be a diocesan office performing three functions. The first would consist of locating, ordering, scheduling, evaluating, and engaging in some production of quality material. These functions are now performed in each school or parish, but the time-consuming nature of these functions make the effective use of media rare. Occasionally the resource center could be a library and thereby eliminate the needless duplication of materials in each school and parish which in the case of television and film is very costly.

The second function of the diocesan center would be to recruit, train and then listen to the local coordinators. There is a high turnover of local coordinators, and this service, provided by the diocesan center, is of great assistance to the school or parish. The local coordinator and his/her cooperation and participation is critical to the success of a learning network.

The third function is to establish and maintain the equipment in the network. It is again one of those functions which if performed by each school individually can be very costly. The number of personnel at the nine diocesan television centers range from 4 to 21. The extent of services provided likewise varies.

Alternative Delivery Systems. The linkage between regional centers and neighborhood centers is not given much thought. It is usually the mail or phone. But here the delivery system is the

key to achieving low cost quality education via TV. This component is concerned with the alternative methods of tying the regional centers and neighborhood centers together. Futuristic thinkers talk of each child and adult having his own television cartridges, much like test and discussion booklets. While this may be achieved in the next five to ten years there will remain the problem of delivering these materials in a low cost fashion. Mailing 100,000 tapes or cartridges per day or week is not an inexpensive operation. For the present as well as the future, it is the technology of television which is the missing link in mass distribution of materials.

Six such systems are considered, a seventh being the mail on trucks. They are: (1) Commercial television, (2) Educational television (specifically ITFS), (3) Cable Television (specifically CATV), (4) Microwave (ITFS) Transmission, (5) Cassettes and Cartridge television, and (6) the Tele-Cyclopedia concept of transmission.

(1) *Commercial Television.* Commercial television is concerned with quality programming which appeals to a large audience. Therefore, inspirational rather than instructional programming is the opportunity. A survey of Catholic school superintendents revealed a rather frequent usage of commercial programming for class enrichment. See Appendix F. Use of the VTR enables the taping of exceptionally good programs for viewing in small groups within the limits of the copyright laws.

Work with commercial television must be conducted within the FCC regulations concerning public service and equal time. These are both a constraint and an opportunity. As a constraint, whatever a station does for one denomination, it may have to do for all. Consequently, stations tend to have an advisory council for public service broadcasting and the Catholic church should be represented. Frequently a diocese will have an officer of communications or radio and TV office to serve as the liaison. Father Casimir Pugevicius, President of the Catholic Broadcasters Association and the Baltimore diocese's radio and TV officer, has created a rather exciting ECUMEDIA group within which all denominations work with commercial radio and TV.

Clearly there is a need for greater collaboration between the education office which has audience and needs and the communications which has the working relations and technology. This was emphasized by several reviewers of this study. Too often prob-

lems arise within a diocese when education personnel wish to secure a Commercial TV opportunity and ignore the working relation the diocesan media officer has created with the station management. Equally unfortunate are the situations when the media officers promote educational programming without consulting the needs and on-going efforts of the diocesan education office.

Finally, many dioceses are overlooking the opportunity of utilizing the commercial stations' studio facilities. These stations have idle resources from time to time and a real commitment to public service. The production of tapes for replay at the parishes and schools on VTR's has not been fully exploited. National statistics show that 25 percent of all schools have a VTR while 75 percent have TV sets. But there is insufficient diocesan commitment to the coordinated utilization of these resources.

(2) *The Educational Stations*. (More recently called Public Television stations) These are typically owned by the State, University, school board or a community based corporation. They carry quality instruction either from the National Public Network or local production efforts. Influential programs are broadcast in the evening and compete with the commercial stations for audiences. The Board of Governors of these stations are usually made up of major supporters, often public school officials. Some dioceses have representatives on this board. The ability of the Church to place programs on this channel is determined by policy; some areas specifically prohibit religious broadcasting. In some dioceses the parochial schools participate freely in all the services including distribution of lesson plans, discussion guides as well as other audio-visual aids. More commonly all school systems that participate pay from $1 to $4 per child in the school system. Some dioceses are using the service, some have discontinued.

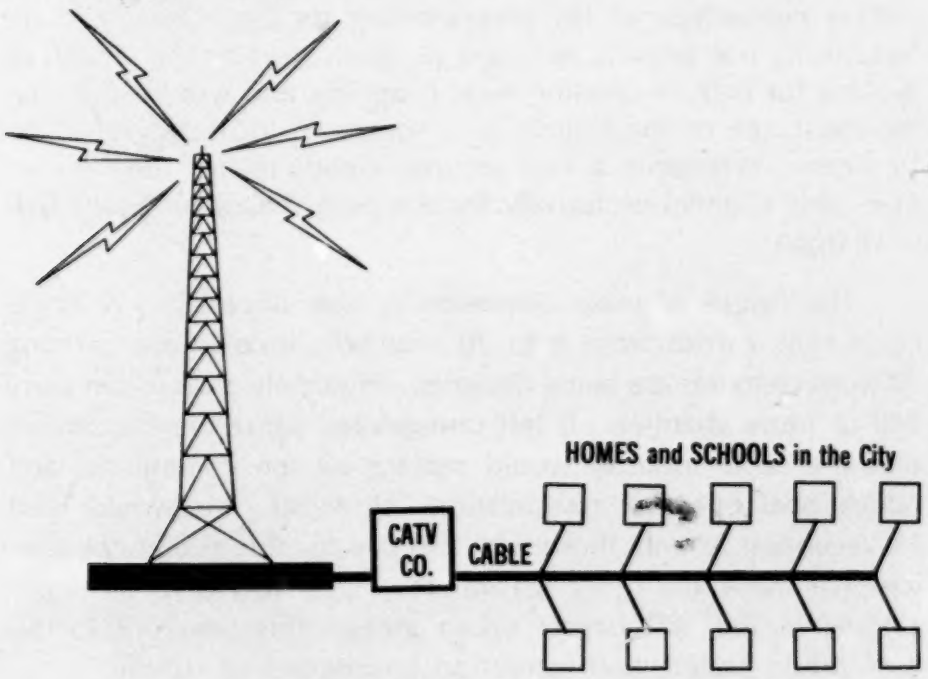
Each station has a unique history, and in some states all the ETV stations are forming a state-wide network. Again each station varies on whether or not the diocese is able to place programming on the air. The cost is about $75 per half hour.

There are two physical limitations: (1) the ETV station does not cover an entire diocese, and (2) with a single channel, if material is being shown for 1st and 2nd graders, the rest of the grades do not have access to the programming.

There are advantages of working with ETV stations and the

public universities in terms of securing access to production facilities and TV expertise if the project fulfills governing policy. Also 198 of these stations are affiliated with the Public Broadcasting Service (PBS), the 4th national network. In addition to local production of shows there are two national production centers, NET in New York and NIT in Bloomington, Indiana. All these video tapes are kept in four regional libraries: Eastern Educational Network, Cambridge, Massachusetts; National Great Plains Instructional Television Library, Lincoln, Nebraska; Midwest Educational Television, Inc., St. Paul, Minnesota; and National Instructional Television, Bloomington, Indiana. Besides national policy regulating access to these tapes, each library may have its own policy. The directors of the nine diocesan stations have extensive experience in working with these libraries.

(3) *Cable Television* (specifically CATV) is the process in which the operator erects a tower to pull in the open air broadcasting of Commercial and Educational Channels and transmit these channels into the home over a cable. Home owners pay about $5 per month for this service. To create a cable system there are problems of securing pole rights and easements to cross public roads and private properties. In the past Bell Telephone company leased cables to operators in small towns for about $100 per month per mile.



Because of public interests involved, easement problems and the potential of cable TV, all systems must obtain local enabling legislation. This legislation establishes the conditions under which a cable system may be operated including the public service the cable operator must provide. The public service the cable operator *may* be required to provide is of two kinds: (1) public service broadcasting time, and (2) grants of equipment to public service entities. Some communities have been able to secure free equipment in all the schools (including video recording equipment) and free reception facilities. The time of public hearings in a locale *is very important to the Church*. If the Church is adequately represented, Catholic schools may be treated on a par with public schools. However, once the legislation is written the issue is for all practical purposes *closed!* Most municipalities in the United States have not written this legislation yet. This is not state-wide legislation, but city by city and town by town. (New York State and some New England communities, especially Boston, have sound policies.)

A second issue of importance to the Church is the issue of public service broadcasting. The FCC is looking to regulate the cable operator in the best interests of the local community. The FCC is gradually applying pressure for these operators to provide local programs, and as of April, 1971, the operator must secure a certain percentage of his programming locally. Operators are historically not broadcasters and program developers. They are looking for help in creating local programs and would welcome the assistance of the Church as a source of local programs. (In La Crosse, Wisconsin a nun secured complete day time use of one cable channel exclusively for diocesan school programs free of charge.)

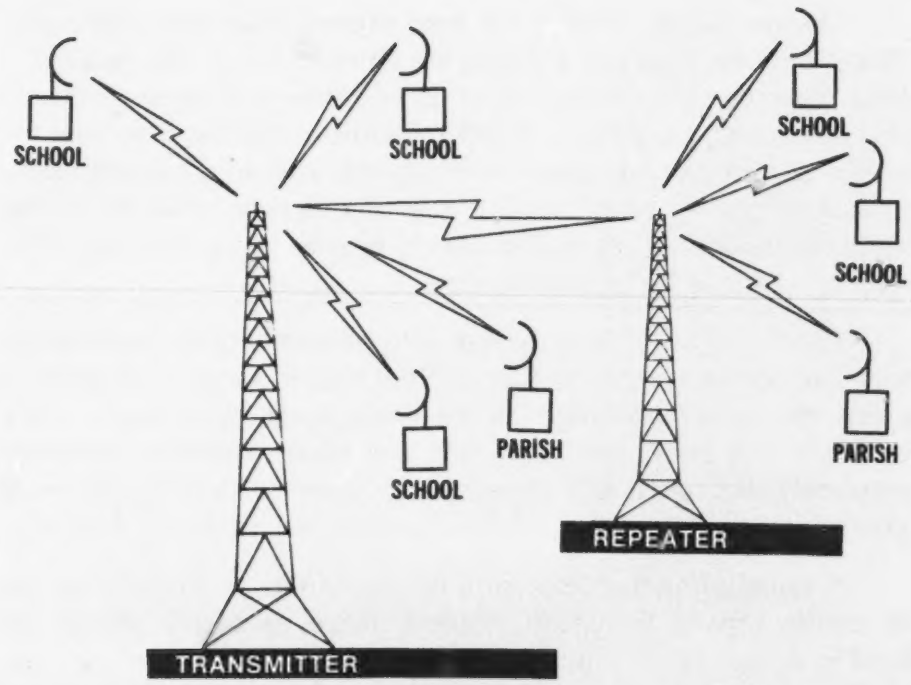
The future of cable television is very uncertain. A single cable now carries from 8 to 20 channels, installations carrying 20 to 40 channels are being designed. Physically a cable can carry 100 or more channels. If left unregulated some people project that the cable industry would replace all the commercial and educational open air transmission. However, this would limit TV reception to only those who can pay for this additional service. For these and other reasons the FCC had frozen all applications in the 100 largest urban areas. This year, 1971, this prohibition ended, and legislation is progressing rapidly.

The best visionaries in the field project that some cable potential will be reserved for pay television—much like making a long distance call. Another portion of cable will be reserved for private leasing purposes. Another portion will be reserved for public service, as education, fire, police, and other government broadcasting. No one is willing to project a time when all of this will ultimately take place, but five to twenty years is a guess. But the legislation is being written now.

The thrust of cable television is to promote local transmission into the homes. Hence it is consistent that in large metropolitan areas, the entire coverage of the entire area by a single cable operator will be prohibited. This will make diocesan coverage extremely difficult if not impossible. However the Church must gain access to the public service channels regardless of difficulty.

In concluding the discussion of alternatives and opportunities in public service television systems, three problems should be kept in mind. (1) A single system rarely spans an entire diocese. (2) Broadcast time on these services must be negotiated on an individual basis in competition with other public service users. (3) All three public TV systems are governed by the FCC and its requirements of equal time for controversial or sectarian broadcasting.

(4) *Microwave (ITFS) Transmission.* Microwave is a direct point-to-point audio-video system. ITFS (Instructional Television Fixed Service) is an adaptation of micro-wave which allows multiple reception from a single transmitter and thereby enables very low cost transmission and reception. Since each receiving site requires a special antenna and down-converter, the ITFS is a private distribution system. Hence the FCC regulations applying to public television services do not hold. The signals have a service range of approximately 5 to 20 plus miles depending upon terrain (but this range can be increased by "repeater" transmitters). This low power transmission avoids the high costs and higher grade engineers required by the commercial and educational stations. ITFS systems are capable of transmitting several channels simultaneously thus enabling the system to cope more effectively with traditional scheduling problems caused by the limitations of a single channel. And finally, ITFS can encode and decode "hard copy" (printed messages), as well as computer data.



It is for these reasons—low cost, private, flexible and adaptable, capability of hard copy and computer data, and the capability of covering an entire diocese—that the nine dioceses have chosen ITFS as the backbone of a diocesan communications system. (Two more dioceses are seriously considering ITFS at this time, and five more have applications approved by the FCC.)

The studio facilities may be as simple as a video tape player for each channel. A single camera can be added for live production. Or a studio can be added along with a complete diocesan media center servicing all audio visual needs of the diocese.

The towers, transmitters, and repeaters required depend on the geography of the diocese and the availability of tall buildings or mountains. This requires an engineering study, for tall buildings can obstruct the required point-to-point reception and transmission.

Each parish and school requires a receiving antenna and down-converter. This makes the system private. An ordinary TV antenna or set cannot receive and decode the signal. Finally, each parish and school must be equipped with room to room cables and a TV set. An ordinary TV set is used as the down-converter decodes the signal for ordinary viewing.

The installation costs vary greatly among the nine dioceses. This is due to the relatively simple to complex broadcasting facility, simple or complex geography, and because some of the estimates include or exclude the in-school cable and TV sets. It is common to speak of all hardware costs to and including the roof tops, but not in-house cable and sets.

For these reasons the installation costs in the nine dioceses have ranged from $500,000 to $2.5 million—the cost of one school. The 1970 operating budgets ranged from $40,000 to $325,000 ($1.00 to $10.00 per student) because of the range of services offered and the amount of local production. To remind the reader that these figures are low cost, an UHF single educational channel ranges from $2 million to $20 million for installation, and the annual participating costs range from $2.00 to $16.00 per student.

Diocesan consideration of ITFS evolves around the following issues: (1) Low cost per pupil requires a relatively dense Catholic population. (2) Geography, the density, distances, and physical obstacles, must be favorable. (3) Inability to broadcast into the homes directly is contrasted with the uncertain but expanded future of cable television. (4) Does the diocese have needs it cannot now meet?

On the first two issues, we estimate that ITFS is feasible for about 20 to 30 dioceses for full coverage. Another 30 to 40 dioceses could profitably employ ITFS if they are willing to use the signal of a neighboring diocese. On the third issue this office is of the opinion that ITFS is the only way to tie together the 20 to 50 cable operators of the future in a diocese. The cable operator need only put a receiving antenna and down-converter on his tower. This is already being done and adds greatly to the flexibility of ITFS.

For the other dioceses, the learning network must be built out of some combination of the other delivery systems discussed in this report.

(5) *Cassettes and Cartridge Television.* The much publicized cassette recorders and players have captured the imagination of many as a new kind of delivery system. This is not true. Within institutions the cartridge systems will have the same function as

a VTR (a 30 mm projector with recording and other capabilities). For the homes they will become a "television phonograph."

On the drawing boards are cassettes that will operate like a juke box. Twenty to fifty lessons will be made available. All the viewer need do is push buttons to select a lesson or program. This innovation will make a significant impact on the individual study carrels.

However, the use of cassettes will pose the same problems as the use of the video tape player and recorder, namely, you must get the tapes and cartridges into the homes or school. The possibility of delivery systems available are described below under Tele-Cyclopedia and the mail systems.

For the dioceses whose geography and population does not lend itself to ITFS, the cassettes will be a real boon. The initial efforts of the Archdioceses of Cincinnati and St. Paul in producing a single series to serve a specific need will be the pattern. Furthermore, we foresee the capability of mass duplication of cassettes for national distribution specifically serving the educational needs of the Church. In any event this does not lend itself to a high volume of instructional television utilization.

(6) *The TELE-CYCLOPEDIA Concept of Transmission.* Coming from St. Paul, Minnesota, the system is operating in Minnesota and Ohio. Tele-Cyclopedia is not a system in itself, rather it is used in conjunction with open circuit facilities of VHF and UHF or closed circuit facilities of ITFS or cable television. Tele-Cyclopedia has many aspects, three of which are of interest to this report.

First, to solve the problem of delivering video materials to several hundred schools, the materials are broadcast in the "dead" evening and early morning hours on VHF, UHF, or ITFS channels. Each school will have a video tape recorder to record those programs it wishes to use the next day. The net effect of this is to eliminate the daily or weekly mailing of a great number of tapes. It also eliminates the need for each school to have a tape library as video tapes are re-usable for recording at the end of each day. Hence each school has one or two tapes with a video recorder while having access to hundreds of tapes at the regional center. The school only need notify the regional center by 3:00 PM each day which programs it desires for the next day's classes.

Second, to solve the problem of having someone in the school each evening to turn on and off the recorder, electronic gear has been invented which will turn on and off the recorder remotely from the broadcasting station.

These two concepts enable a highly flexible setup at a low cost utilizing the existing facilities of a commercial or educational television station. It also enables the multiple use of materials of a regional media center.

The third concept capitalizes on the teacher control over the time at which a film is presented to the students. Since the materials are on a video recorder in or near the using classroom, the costly introduction and conclusions of traditional tapes are omitted. The teacher shows only the heart of the film, doing his or her own introduction and summary. Hence these films tend to approximate single concept presentations, the teacher creating the necessary links over a time he or she chooses. This enables greater interaction between the film and teacher, hence requiring a somewhat different educational approach to television.

It is the opinion of this office that the Tele-Cyclopedia concept of transmission is the only feasible alternative to ITFS in low cost and flexible instruction television over which the diocese has reasonable control.

The Archdiocese of St. Paul and the Diocese of Cleveland are employing this concept to a limited degree, but since neither has an adequate history to evaluate, we are left only to speculation. The problems which will probably evolve here are the following:

First, the volume of video materials that can be delivered may be very limited if extensive instructional television is planned. Second, while it is a very good system, it does not provide the basis for a diocesan communications system as does ITFS. While as flexible as ITFS in video transmission, it does not have the other transmission capability of ITFS, such as hard copy, live broadcasting, and computer data. Fourthly, ITFS can employ the same type of transmission, but can do so in the day time as well. Fifth, it may not cover an entire diocese. Finally, realistic cost studies are not available.

On the positive side, this concept may prove to provide a superior service for adult education, CCD and high schools than the type of transmission currently employed. Secondly, it may

be of such a comparative low cost that this may be the point at which a diocese will want to begin working with instructional television.

In summary, we recommend that some fifty dioceses could profitably employ the ITFS system in the creation of a learning network. It has a proven record in the dioceses of Boston, Brooklyn, Detroit, Los Angeles, Miami, Milwaukee, New York, Rockville Centre, and San Francisco.

For the other dioceses we recommend a serious look at their media requirements. The information explosion does not allow our people the time for all the reading required. Many dioceses have a communications officer working with the public media. Many parishes and schools have interested people concerned with the effective employment of media. A study could pull together existing resources into a stronger educational effort.

There is not one best way for all the dioceses. A learning network must be tailored to the needs and resources of each diocese. We are concerned with the developments which are taking place in all the dioceses and are willing to give assistance where possible.

Chapter IV
What Needs to be Done?

This report has confined itself to exploring the concept of a diocesan learning network and an examination of feasible delivery systems. Many other factors need study. At USCC data is being collected on available programming and on the variety of diocesan media centers that are beginning around the nation. This will be shared with you upon request.

However, the greatest need is for each diocese to re-examine its educational posture with respect to media. Many dioceses already have or are in the process of a self-evaluation or examination, but the USCC/NCCB Committee on Education is concerned that the newer methods in media be given adequate attention. Costs are no longer prohibitive and needs are arising which may not be satisfied by conventional approaches to education.

The serious consideration of a media learning network must begin with a very broad assessment of educational needs. It is not recommended that new methods be employed where and when conventional methods are doing the job.

In this report a conceptual scheme has been developed as a potential model for all the dioceses. However, the real effort must be made to particularize this model to fit the specific needs and resources of each diocese. Attempts to transplant a system from one diocese to another is doomed to mediocre performance if not failure.

It cannot be overstressed, the design of a learning network must be tailored to fit specified needs, desired outcomes, and services. The philosophy and operational policies must be unique to each diocese.

Here is an outline of the questions a diocese must ask itself in order to determine the nature and feasibility of a learning network which will truly do those things you cannot do now.

1. Specifically and in detail, what are the educational needs of all your people? This is a need assessment phase.

2. What are the alternative educational activities which will lead to a constructive satisfaction of these needs? No decision is possible unless there is a choice.

3. Of those activities, which can be done as well or better with media support? (In this phase the advice of media specialists would be useful.)

4. From the above study, how do you visualize a sound and ideal neighborhood center to facilitate the desired educational activities? There should be several designs, and only then are choices made.

5. Now consider the constraints. What are the existing resources?

6. To what extent can the present personnel work with a redesigned learning center? What training programs will be required?

7. Now, the design of the required coordination is to be considered. What should the regional (diocesan) center be like? What services should it perform which cannot be done or done as well at the neighborhood center?

8. What are other communications needs of the dioceses? To what extent can the facilities of the neighborhood and diocesan centers be employed to service non-educational but essential diocesan communications needs?

9. The selection of the delivery system is now appropriate, along with cost projections.

10. You are ready to ask what are the goals and objectives of your learning network, what are the desired utilization levels, operating policies, and evaluation check points? (See Appendix D)

All of this can only be done by a team. However, to charge a single team with the complete study would tend to predetermine the results and offer few if any alternatives. Hence, the directive and management of the study groups are critical to achieving sound recommendations and plans. It is recommended that the study be completed in parts, each with an adequate budget, clear assignment of responsibility, and a two or three month time limit. It would seem desirable that the first four questions be a separate

task from the second four. An adequate review of all the needs will rarely be accomplished if a study team is required to get involved in the fascinating yet confusing world of gadgetry.

From Father Robert Nygaard in St. Paul came the suggestion that experimental use of VTR's by teachers be included in the need assessment phase. Actual use of the medium, doing new things in new ways, has a way of sorting out the feasible from the possible. It enlarges the study team and introduces new thinking in your educational efforts. He also suggested mobile laboratories. This would lengthen the study phase, but would also strengthen support, commitment to innovation, and demonstrate diocesan seriousness of intent to revitalize the education programs.

In any event the highest priority is to begin. An official committed to conduct and complete a study within a limited time span will overcome many difficulties. Most mistakes are made in an half-hearted effort. And the greatest mistake is the failure to think "big." All of us are too prone to underestimate our potential and available resources.

The final recommendation is concerned with the eminent loss to the Church of the ITFS band and to cable television. Both require immediate action.

In dioceses with a relatively dense Catholic population, it is recommended that a construction permit be filed with the FCC as soon as possible. A consultant can do this rather quickly. This will reserve the channels required by an ITFS system if and when the diocese chooses this type of delivery system. Whether or not a diocese uses these rights is another question. But if the rights are not reserved, options will be severely limited. Even with the tremendous potential of cable television, potential users of this type of transmission—be it for television, computer data, hard copy transmission and others—will always exceed the number of channels available.

Secondly, all dioceses should survey the present situation of the cable television franchise process within each municipality of the diocese. If legislation is not approved, work should be initiated with the public school authorities to develop a sound proviso for public service to education.

Obviously you wish to become an ally with the public schools in both educating the educators to the enormous resource that

may be lost to education and in developing necessary political support for sound legislation. The latter may be the more important of the two. In exchange you want access to the cable's education channels as well as a share in the control of its programming.

These items deserve your immediate attention.

Appendix A

FROM: A PROPOSAL FOR A COMPREHENSIVE INSTRUCTIONAL COMMUNICATIONS NETWORK FOR THE ARCHDIOCESE OF CHICAGO

by Rev. Patrick Farrell and Dr. Robert Pierson

UTILIZATION

A Resume of Possible Uses

Is "educational television" an expensive toy or an economical tool?

Is it an incidental luxury or a critical necessity? The best way to approach these questions is to outline the possibilities that this system affords us.

Classroom Instructional Television

The first and immediate use for ITV is in the classroom as a component of the instructional program. Under such a use we would be able to flexibly design curriculum that would expand the educational package in every classroom. At present we have this through Channel 11 and 20, but the use of these two channels limits the flexibility of scheduling. The fact that many educational agencies are members of CAST (Chicago Area School Television) prevents our needs from influencing the programming content and the design in a way that would truly make this source responsive to our needs. We visualize the use of four channels exclusively at our command as being most conducive to our curriculum and our unique scheduling problems.

Especially in the area of religious education where the commercial channels have little to offer because of the equal time requirement—we find a great void in the creative use of media.

In-Service for Teachers

Our philosophy demands Christian educators who wish to be part of a faculty that is a Christian community. Our work to produce such teachers is of prime and growing importance. Therefore, one of the painful needs of our system is a flexible and comprehensive in-service program for teachers.

There are 11,000 teachers in our system. With the capabilities of ITFS we will be able for the first time to meet with teachers in their own schools on a regular basis. At present, this is impossible. ITFS will allow us to use more productively the consultants whom we hire and at pres-

ent transport great distances to many centers in repetitious programs. It will make it reasonably possible to expand the gift of guest speakers by letting their time be spent on what they have to offer rather than on transportation or repeating the same program a second, third and fourth time to a new audience. Economically we will improve the budget picture by not requiring a consultant to spend a week here in order to accomplish what could be done in a day if the means were available.

This system would not be used in a passive mode. The viewer would be drawn into the program through the use of telephone lines connected to the production site. In this way teachers in a designated area would be able to ask questions of the TV speaker and have them answered immediately. They would also be able to question teachers in another location or share experiences. With this system through the hard copy data component, teachers would be able to receive utilization or enrichment materials directly from the speaker who would transmit them to the schools right during the presentation. The combinations of situations stagger the mind. With this instrument, the Christian development of our faculties would not seem so insurmountable. The professionalization in curricular and instructional design and process would be available and practical.

Pre-Service for New Teachers

Pre-service training for future teachers would gain much from such a system. Many of our teachers come from secular colleges and universities where little is known or developed that conforms with a Christian philosophy of education. We must provide this component for new teachers who enter our schools. ITFS will provide the avenue for such an enterprise.

The school would also benefit by another flexible component being married to this system (i.e., cable TV and cassette audio-visual equipment). In the case of cassettes we would be able to have a central resource library of teacher and pupil-oriented materials at our production site that would be available upon request. Using ITFS we would be able to send out during the off hours of midnight to 8:00 a.m. any program that a school might need for the next day or week. With a simple attachment to the school-owned video-tape recorder an unattended machine could be programmed to turn on at a given impulse and record the program transmitted over ITFS. When the teacher would arrive in the morning what he needed would be available on the tape for replay at his convenience.

Test Standardization

One use that is of limited scope but of great import is the use of ITFS in connection with testing programs. One variable that is often overlooked is the teacher variable. If one teacher gave the directions to all students via TV and also timed the test we would reduce the problem of poor instruction in the testing procedure. At the high school level we could perform this service for all entrance exams.

Computers

One of the most expensive items in the use of computers is the telephone line cost. TV would give us a future vehicle for computer assisted instruction at costs that are manageable. At present there exist computer uses that would be immediately available to us. The first is a test item data bank with test scoring capability. The second is a classroom activities data bank to help design instruction and improve lesson plans. Both are uses that would relieve teachers of clerical jobs that have drained the energy of good teachers.

Confraternity of Christian Doctrine

The CCD has a growing role in the Christian Education of Children. With an elementary population of over 150,000 presently receiving instruction and aware that this is not the whole potential population, the CCD would find many uses for such a facility.

Teacher training would be a first and immediate use for the CCD office. (Like the schools, the CCD program develops gaps in its training due to the immensity of the project.) Using many of the techniques spoken of under teacher training above, the ability to have the best available for all would be possible.

Since many teachers are still volunteers, we have the perennial problem of insuring the quality of their teaching. ITFS will be a great help. It will also be valuable as a component of the instructional package as an integral part of the soft ware materials that the office develops.

Again the data transmission and the system of transmitting upon request programming that the local center would video-tape for later use would add flexibility and quality to the program.

Diocesan Administration

The agencies of the diocese spend a great deal of time and energy communicating with priests, teachers, coordinators, parents, etc. Too often we have been late and limited in what we were able to say to them. With ITFS we will each be able to talk to the people we want in a regular and comprehensive way. The Cardinal might arrange conferences with pastors and associate pastors on a regular basis. The superintendent could speak with principals, teachers, parents or students, the CCD director with his constituency and so on.

Fund Raising

Fund raising by means of ITFS is a use other dioceses are exploring. We would be able to benefit from this system both in the production of materials and in a means of managing any such campaign both for those involved and those toward whom we are directing our appeal.

Pastoral Ministry

The needs of the priest and religious as well as the adult community are continually changing. The ITFS staff together with the interested group would be able to design programs for priests and religious in scripture, theology, liturgy, counseling, management, group dynamics, etc. We would be able to use better the time of the participants who wouldn't have to travel and the teachers who have at present limited exposure to small audiences. The system would also be able to offer many services that at present are not offered. We would be able to help every parish with their bulletin by transmitting articles and items of interest as well as art designs for inclusion in the pamphlet. We could in accord with a computer system supply many aids to manage the parish professionally. ITFS could design help in the area of homiletics. It would provide a way for many to profit from visiting experts who are only in town for a day or just passing through. In this last case we could tape an interview or even a whole series in a short time and play it back at times that are convenient to us. Clergy conferences and the work of the new senate would not need such massive planning nor would we be so slow to call meetings because it dislocates so many.

Liturgy Commission

The training programs both with regard to the understanding of the new forms and with regard to the execution and performance of the liturgy would be greatly expanded. One obvious need that could be supplied is in the area of setting. Here we could help those involved in music for liturgy. Those who have a talent for design would be given advice on the physical appointments that can do so much for the feeling about the new liturgy.

The many liturgy committees presently constituted in parishes would benefit from this improved communication with the central commission. Future conferences would use this medium. The changes yet to be announced will have a ready vehicle for disseminating the news and the technique for implementation.

CANA Conference

Here we find a rich source of possibilities. Imagine the types and depth of program this provides a very overworked and dedicated staff. The needs of Pre-Cana and Cana itself demand constant innovation for survival. The work of the Home-School Association would take on new possibilities. This office like all other agencies has a constituency that needs in-service and needs constant communication and encouragement. We would be able to meet more often with help that presently is unavailable. ITFS would be a great help in the *Becoming a Person* program by adding a media component to a textual curriculum.

Adult Education

Adult education is where the action is. If we are to build a future for the church we must be available for our people. We have to share

with them the foundations for a relevant mature faith. We are limited in personnel. We are limited by the times when we can gather a group. We are limited by space. If we design an indepth ongoing program we neglect some other place that could use this as much. ITFS would make our personnel omnipresent if we so desired. It would make quality programming part of the style of every parish and we could concentrate on improvement rather than movement from one location to another. Here again data transmission and telephone feedback would make this a very responsive tool. In addition, we would not have to worry about equal time for programs that might offend other communions since we own the system.

Religious Communities

In Brooklyn and New York City religious communities are using ITFS to conduct chapters and other annual or occasional meetings that otherwise would have required great outlays of money for such a gathering. They are designing pastoral ministry programs for *all* where formerly this was impossible.

High School Diplomas and College

We could help those who need to complete high school by designing programs to give them a high school equivalency course. This is already a part of most diocesan systems presently operating. We would also be able to establish relationships with our colleges and universities to produce credit courses. We might even be able to have our own TV college. There is one such institution already existing in Chicago. Our college would be able to provide a Christian philosophy and because of the design would again be active in involving students by use of the data transmission and the telephone feedback.

Special Education

Given what has been said above, it seems easy to see what special education might be able to do. Children who are handicapped in some way, especially those who have a learning disability, benefit most from a visual approach to education—being more visually oriented. Media is one of the arms of such an approach. The tailoring of a program for this special audience is long overdue.

Private Industry

In Rockville Centre, New York they hope in the very near future to make their operation self-supporting by selling time to industries that need a way to reach many salesmen at one time in a wide geographic area on a regular basis. They are also going into commercials and industrial films. In this way they hope to be able to give the diocese a system that is supported by fees from private industry. We could also explore such a possibility.

Catholic Charities

Catholic Charities has its programs both in child care and counseling. In its fund raising we see the obvious uses for TV. Charities has a clientele that also demand in-service for quality control. ITFS will provide this capability.

Diocesan Linkage

Milwaukee already has this system of ITFS. Our engineering design will immediately make us a network overlapping with Milwaukee. We will be able to share with them the things they are doing as they share our offerings. Our transmission network will also hit a great part of the Gary, Joliet, and Rockford dioceses. Smaller places with large geographic limits have our problems in a magnified version. We should be helping each other. ITFS will make this possible.

High Schools

Programming at the high school level at present demands a different design than at the elementary level. Here we would use the vehicle of transmission-on-request of a large library of materials. Schools wishing media materials would call the station then we would provide a time for such programming. These programs would be taped by the school onto their own tape for flexible use at a delayed time.

The uses of computers is fast becoming a necessity for high schools. We could transmit master schedules and test results as well as use the Center and computer as a resource center for computer assisted instruction.

Hospitals

The medical agencies of the Archdiocese could use help in general areas. In-service for the professional staff would benefit from ITFS. Training for nurses and other personnel could be designed for television with improved quality and savings in personnel, time and money. Patient programing could also be designed for creative use of convalescent time as well as entertainment.

Conclusion

The above list is not exhaustive. As a matter of fact, it represents only the beginning of the many uses that this system will make possible. The medium is the message. And the message will be heard and seen through this medium if we harness this tool creatively.

Appendix B

HOW TV COULD HELP THE PARISH PRIEST

by Father Michael Dempsey
Diocese of Brooklyn

I. 1. CCD—More and better programs on all levels

   a. Preparation for First Communion and Confirmation
   b. Sex Education

2. Adult Education—More and more varied programs
   a. Theology
   b. Family Problems
   c. Sex Education

3. Provide a year's program via TV for Home School Association—Common programs all could use

4. Provide a year's program for Parish Societies
   a. Holy Name
   b. Rosary Society

5. Training adults for work in youth programs
   e.g., CYO's Impact Program

6. Show on TV how a priest could teach in Elementary School via pre-recorded programs (if his schedule prevented his being in school himself)

7. Preview films, etc., via TV before renting or purchasing for local use

II. 1. Improve communications between the inner and outer city

2. Information distribution on jobs, medical care available

3. Assist better racial understanding
   a. Programs showing frank discussions between blacks and whites
   b. Programs geared to educate parish groups about the problems of race

III. 1. Liturgy

   a. Get a top liturgist to talk about the latest changes in the liturgy
   b. Demonstrate the newest changes in the ceremonials e.g., new funeral liturgy
   c. Film and playback for all parishes what kinds of approved liturgical changes have been developed in some parishes within the Diocese

2. Telecast a summary of the Priests Senate meetings
3. Extend Diocesan News Programs
4. Have up-to-date Diocesan pastoral announcements made via TV—perhaps on Saturdays
5. Have an occasional forum for imaginative pastoral ideas, perhaps including filming already going operations
6. Make it possible for priests to observe what is being taught to children in school
7. Permit priests to record worthwhile TV programs, Diocesan or commercial, off-the-air for use later in their own parish programs

IV. 1. Advertise worthwhile programs

   e.g., Parish Play, Propagation of Faith, parish outing

V. 1. Have the Bishop talk to his priests on Saturday nights 5:30 or 7 PM

2. Pastoral Institute
   a. Put individual talks or whole courses on TV for priests who cannot get to Douglaston regularly
   b. Create a library of such materials that could be made available virtually on demand
3. Telecast worthwhile special talks
   a. Father Glimm's presentation at St. Rita's.
4. Telecast a successful Parish Council Meeting

VI. 1. Live coverage of Important Events

2. Providing closed-circuit coverage for overflow crowds in local parishes
3. Pull in distant giant football games—one parish, at least, uses this to earn some income
4. Show good full length feature movies without interruption

5. Provide surveillance and security for otherwise unguarded areas in parish buildings (cuts down insurance costs)

6. Videotape yourself or others preaching, swinging a golf club, etc., to see mistakes and correct them

7. Assist in parish elections by making it possible for all voters to *see and hear* all prospective candidates
(e.g., St. Saviour's Parish Council Election)

Appendix C

BRIEF SUMMARY OF DIOCESAN ITFS NETWORKS

by Rev. Patrick Farrell and Dr. Robert Pierson

New York

Working from transmitter sites at the Empire State Building, Staten Island, and the localities of Beacon, Cheescote, and Rhinecliffe, the New York ITFS operation covers a wide expanse of territory. A $2.00/elementary child/year and 75¢/secondary child/year operating assessment covers approximately 65% of the total yearly operating budget—the diocese picking up the remainder. RCA was prime contractor, installing TV equipment originally used in the New York World's Fair. 20% of total output is self-produced. Organizationally, ITV is part of the Department of Education and serves as a *Service Agency* for the diocese. A close contact is maintained with various curriculum organizations. Few ties are maintained with the Diocesan Radio-TV department. Also, there are no plans to branch into the other areas of instructional telec mmunications. The ITFS operation is housed in a building designed and built for the diocesan ITV project.

Rockville Centre

The diocese covers its area on Long Island with three transmitters. Pupils are assessed $3.00/year to cover the operational budget with the diocese subsidizing about 40% of the total costs. The ITV center handles all servicing for the diocese at no cost. The chief administrator answers directly to the Superintendent of Education for the Archdiocese. A monthly program guide with an elaborate *per program* evaluation response is in effect. The ITV center is spacious and designed and built for the ITV operation as well as future expansion into other areas of instructional telecommunications.

Brooklyn

Working with three repeaters plus the main transmission site, Brooklyn presents the greatest amount of locally produced programming—almost 50% of the entire schedule. Staff curriculum experts from various diocesan agencies write and produce programming. The ITFS operation is a part of the Department of Education with the chief administrator being an assistant Superintendent. Renovated facilities in a high school serve as headquarters for the operation. These facilities underscore the need for an adequate amount of space since the Brooklyn

diocese is very cramped in existing facilities. Because of an initial cost factor, Brooklyn (and San Francisco) are the only two diocesan operations broadcasting on a helical tape format instead of quadraplex.

Miami

Miami presents a minimum ITFS diocesan operation. A small staff (two engineers) plays back a program schedule composed almost 100% of leased or rented programs from available national and similar program libraries. The Archdiocese *subsidizes the entire operating budget* of the ITFS system via a separate budget from the School Board. Detailed studies were conducted on lease versus direct buy for respective school sites, the costs of which were borne by the respective parish/school. The chief administrator was Superintendent of Schools at the inception of the project and is now the Archdiocesan Director of Radio-TV.

Los Angeles

The diocese covers its area with repeaters broadcasting from the top of Mount Wilson covering a four county area in the area. The system was built on the principal that less than 50% total programming time would be involved in "formal" in-school broadcasting—the remaining 50% would be devoted to CCD, adult education, etc. The Archdiocese subsidizes the *entire* operational cost of the system—each parish/school pays for a yearly service contract for their reception equipment. An elaborate evaluation system stressing program accountability is now in effect. The ITFS system presently uses space at Loyola University but will shortly be moving into its own facility. The Chief Administrator is the head of the Archdiocesan Department of Communications—major curricular and related decisions are effected by the Department of Education.

San Francisco

Using three repeaters and the original transmitting site, the Archdiocese of San Francisco ITFS system covers a difficult topographical area. A $1.00/child/year assessment covers a minimum of costs with the Archdiocese subsidizing the major share of the operational budget. Chief Administrator for the system is also the Assistant Superintendent for Schools. The system uses helical scan video-taping equipment (similar to Brooklyn).

Milwaukee

With New York, the Milwaukee system covers the greatest *geographical* area. When completed, the Milwaukee ITFS system will contain six separate ITFS repeater transmission sites. A $1.85/child/year operating assessment covers the major portion of the operating budget with the Archdiocese assuming the difference. The system is housed in

a building constructed for the purpose. The Chief Administrative Officer has a "line" authority with the Department of Education.

Summary Data for the Nine ITFS Dioceses

Number of studios per diocese	0 to 2 Average of 1
Number of channels per diocese	2 to 4 Average of 4
Total staff per diocese	4 to 21 Average of 11
Number of transmitters per diocese	4 to 21 Average of 12
Dates on the air	9/65 to 2/70 Average of 2/67
Radius of Coverage	15 to 80 miles Average of 45 miles (New York covers 4000 sq. miles)
Hours on air per day	12 to 35 Average of 21
Number of receiving sites	51 to 260 Average of 80
Number of students served	20,000 to 200,000 Average of 60,000
Number of classrooms reached	460 to 2,134 Average of 1000
Installation Costs	$500,000 to $2.5 million Average of $800,000
Annual Operating Costs	$40,000 to $325,000 Average of $225,000 or $2.50 per student
Totals for the nine dioceses	9,800 classrooms 842,000 students $1,800,000 annual operating costs

Appendix D

EVALUATION CONSIDERATIONS

(From the Archdiocese of Chicago)

A continuing evaluation process must be an integral part of the operational procedure of the Archdiocesan Instructional Communications System. The evaluation will be designed, developed, and implemented to gather a data base of pertinent information from the actual users and key curricular personnel. Feedback will be analyzed in order to determine strengths and weaknesses of the Archdiocesan program. The primary objective behind this analytical and evaluative procedure is to present relevant and effective programming, utilization materials, and supportive services for the end user. Evaluation results, summations, and recommendations will be submitted to and scrutinized by the Archdiocesan Council on Instructional Communications, Archdiocesan School Office, and other Archdiocesan programming sources.

NOTE:

The following reflects in-school usage. Appropriate changes will be effected where necessary for programming other than in-school. Also, on-going evaluation of programming in production will take place.

Implementation Procedure

The following is a summary of the organizational steps involved in planning and implementing the evaluation process:

1. The Archdiocesan Instructional Communications Staff structures the forms, etc. design required to meet the specific objectives of the evaluation.
2. TV orientation sessions are held with Parish IC Coordinators. Evaluation rationale and operational procedures required to complete the project are outlined.
3. The Parish IC Coordinator supervises the evaluation procedure within the individual school.
4. The information is processed to produce the desired reports.
5. The Archdiocesan Instructional Communications Staff synthesized the individual and school report into a final summary report. The data is analyzed and submitted to the Archdiocesan Council on Instructional Communications and/or the Archdiocesan School Office, and related Archdiocesan programming sources. These

agencies (agency) review(s) the recommendation(s) of the evaluators and provide(s) the decision-making mechanism relative to retaining or omitting course offerings, scheduling dilemmas, and future programming possibilities, directions, etc.

Substantive Areas of ITV Evaluation

The following is a suggested synopsis of the major areas of stress provided for in an Archdiocesan IC Evaluation Instrument:

1. Analysis of need assessment by teacher's preference for a series of subjects.
2. Total students viewing the series by school.
3. Statistics and percentages of teachers using a particular series and the extent of its use.
4. A percentage breakdown of the various grades viewing a series.
5. The relationship of the material presented in the programming to the level of ability of the students.
6. A breakdown of the student reaction to a series from enthusiastic to poor.
7. Evaluation of scheduling activities in terms of repeating lessons at the alternate times they are shown.
8. Analysis of why the teacher used the alternate time slot(s) for a particular series.
9. A breakdown of teacher reaction to particular programming.
10. A percentage analysis of lesson development from clear to poor.
11. A general overall analysis of each series (individual programming) on development of lessons, speed of lessons, vocabulary, lesson difficulty, etc.
12. An evaluation of teacher recommendations as to the most appropriate grade for a particular series (program).
13. Percentage breakdown of those that used a series as to its:
    a. Contributions to the student's personal development.
    b. Contribution to the professional growth of the teacher.
    c. Fullfillment of the series' enrichment objectives.
14. Analysis of teachers' reaction to the utilization materials accompanying the programming.
15. Analysis of preparation and followup activities on a given series by the teacher.
16. Analysis of why a teacher did not choose to view a particular program (series).

Appendix E

FISCAL CONSIDERATIONS

Archdiocesan Support—School, Parish Support Overview

(From Archdiocese of Chicago)

The Archdiocese has a sufficient population base from which to adequately fund the operating expenses of this proposal. With few exceptions, existing diocesan and archdiocesan ITFS systems lack an adequate population base for suitable financial support. It costs as much in the areas of basic staffing, capital outlay, etc., to serve 40,000 as it does to serve 300,000, or more. Therefore, this discussion of areas of support is predicated upon the immediate inclusion of a maximum population base into the proposed system. This base shall be the elementary population of the Archdiocese. It will be augmented by the viewing audiences of CCD, Adult Religious Education, etc.

It is therefore proposed: the Archdiocese shall incur the following costs:

1. Transmission facilities (transmitters, towers, antennas, and related).
2. Renovation (and/or construction) of a facility (the Archdiocesan Center for IC). This facility will house the staff, production and playback equipment, Archdiocesan film library, etc.
3. Production, origination, playback and maintenance equipment.
4. All site reception equipment "above the roof line" for each respective parish or school building (this will include the tower, receiving antenna, 2500 MHZ down-converter, down-converter power supply).
5. Certain operating costs during the initial phases of the project.

An individual parish (or school) will incur the following costs:

1. Reception equipment "below the roof line" of a respective building (this includes the distribution amplifier, internal distribution system, purchase or lease cost of hard-copy data transmission equipment, and television sets).

2. Maintenance of reception equipment (See note below).

3. Per child and/or CCD, and related religious organization assessment for the total Archdiocesan IC operating budget.

4. Cost of specific utilization materials.

NOTE:

Many schools in the Archdiocese own a number of TV sets. These can be used to receive the Archdiocesan signal with no modification to the individual set. A small electronic attachment to the VHF antenna terminal is all that is required. This will be made available via the Archdiocesan IC Center for $7.50 per attachment.

A number of Archdiocesan schools have installed internal distribution systems of wiring connecting to either a master antenna or even including a small production origination studio. Certain elements, therefore, of the reception site costs, are already in existence. With slight modification at the "originating end" of these systems, such schools will be able to use their existing wiring and equipment to receive the Archdiocesan signal.

PROPOSED CAPITAL COSTS

1. *Transmission*	
Master Site	54,900.00
Repeaters (2)	100,000.00
	$154,900.00
2. *Reception*	
(Archdiocese incurs cost of equipment "above the roof line" at average of $1,650.00 per site)	
150 Sites	247,500.00
200 Sites	330,000.00
300 Sites	495,000.00
421 Sites	694,650.00
(500 Sites	825,000.00)
3. *Production, Playback, Studio*	
(Noted on next page)	
Black and White—Total	209,500.00
Color—Total	248,050.00
4. *Renovation of Existing Building for Communication Facility*	
(Includes interior renovation, rewiring, air conditioning and related)	
Estimated Total	75,000.00

RECEPTION SITE CAPITAL COSTS

Per Site: (Because of varying site factors, these figures are average approximations—specific on-site examination is required for final estimate)

Distribution Amplifier	$200.00
Hard Copy Print Out Equipment	500.00
(Lease at $15-25/unit/month) Yearly Cost	180.00 - 375.00
Average Outlet	80.00
Receiving Set Package (Includes 23" B/W Set, Stand, Lead-in Connection, Etc.)	200.00
Color Package	350.00 - 400.00
A. Total per site minimal installation with purchase of print out machine.	
(Minimal: distribution amplifier, hard copy print-out machine, three outlets,* using existing TV sets)	940.00
B. With lease of hard-copy print-out machine-first year (low to high quote)	620.00 - 815.00

*Three outlets would include: multi-purpose school room, rectory, and convent.

OPERATIONAL BUDGETS SUMMARY

Summer 1971-June 1972

Consultation	$ 10,000
Secretarial (By Archdiocesan School Board Office)	
Travel and Related	$ 5,000
**July 1972-June 1973*	
TOTAL	$193,300
**July 1973-June 1974*	
TOTAL	$338,000

* Details presented elsewhere

Appendix F

SURVEY OF DIIOCESAN INVOLVEMENT IN MEDIA

To indicate the degree of diocesan involvement in media and to suggest areas of cooperation and collaboration, two studies are presented here.

From the Department of Communications, USCC, a survey of Rev. Vincent Lewellis, Director of Information for the Diocese of Allentown, Pennsylvania, was combined with the Department's *Directory of Catholic Communications Personnel* in 1970. From these we find:

99 Diocesan Newspapers
169 Dioceses with some form of Communications Office

Reviewing the titles of these diocesan offices we find:

A. Office of Information	112
B. Office of Radio & TV	30
C. Office of Public Relations	4
D. Office of Communications	22
E. Media Office	1

In interpreting this data we recognize (1) incompleteness and (2) the fact that often one man wears several hats in a diocese.

A second survey was taken in November of 1970 by H. Giles Schmid, Ph.D., for the Department of Education, USCC. It was a check list questionnaire sent to the diocesan superintendents of schools, and therefore represents the extent of television in the schools only. His results are:

Diocesan Responses	130
A. Some schools use Commercial TV programming	74
B. Participate in educational TV programming	68
C. Work with local cable TV	21
D. Some schools have closed circuit TV	43
E. Have an on-going schedule of TV	33
F. Occasionally produce TV programs	22
G. Know of another diocesan office in TV	22

Nine dioceses have their own closed circuit television system, two are seriously planning them, and six have made a study or applied for a license but have discontinued. About ten states have an excellent ETV station in which the schools participate, some free and some must pay. Another ten states have ETV but diocesan participation is sporadic.

Due to the self-reporting nature of the survey the extent of involvement and commitment to instructional television in the various categories is not known. Also there was not a 100% return on the questionnaire. The reader must keep these limitations in mind when interpreting the tables.

In the following table, the first column is the list of states and dioceses. The second column contains the codes of the responses from the Communications survey and the third column contains the codes of the responses on the Education questionnaire.

Codes for Communications

A=Bureau of Information
B=Office of Radio & TV
C=Office of Public Relations
D=Office of Communications
E =Media Office
* =Diocesan Newspaper

Codes for Education

A=Some schools use Commercial TV
B=Participate in educational channel
C=Work with local cable TV
D=Some schools have closed circuit
E =On-going schedule of educational TV
F=Occasionally produce TV programs
G=Know of another diocesan office in TV

Diocese	*Communications Offices*	*Education Usage*
ALABAMA		
Mobile-Birmingham	*	B
ALASKA		
Anchorage	A	G
Fairbanks	A	
Juneau		
ARIZONA		
Phoenix		
Tucson	A	
ARKANSAS		
Little Rock	*	B D

Diocese	*Communications Offices*	*Education Usage*
CALIFORNIA		
Fresno	* A	C D
Los Angeles	* B	A C D E F G
Monterey		A B C
Oakland	* C	A B D E
Sacramento	A	A
San Diego	* D	A B D
San Francisco	* A B	A C D E F
Santa Rosa	A	
Stockton	* A	B G
COLORADO		
Denver	* B	B D
Pueblo	* B	A B C
CONNECTICUT		
Bridgeport		A E
Hartford	* D	A B D E G
Norwich		B
DELAWARE		
Wilmington	* B	A D E F
DISTRICT OF COLUMBIA		
Washington	* A B	B G
FLORIDA		
Miami	A D	D E F G
Orlando	A	A B
St. Augustine	A	
St. Petersburg	A	A B
GEORGIA		
Atlanta	*	A
Savannah	* A	A
HAWAII		
Honolulu	A	B E F
IDAHO		
BOISE	* A	D
ILLINOIS		
Belleville	* A	E
Chicago	A	B D E F
Joliet	* A	E
Rockford	* A	C D E F G
Springfield	A	E
Peoria	* A	B D E F

Diocese	*Communications Offices*	*Education Usage*
INDIANA		
Evansville	* A B	A B
Fort Wayne-South Bend	A	A B D
Gary	* B C	E
Indianapolis	* A D	A
Lafayette	* A	A B C
IOWA		
Davenport	* D	A B C D E G
Des Moines	* A	A B
Dubuque		A B C D
Sioux City	* A	A B D E
KANSAS		
Dodge City	* A	
Kansas City	* A	B
Salina	* A	
Wichita	A	
KENTUCKY		
Covington	* A	B D E
Louisville	* A B	B E
Owensboro	A	B E
LOUISIANA		
Alexandria	* A	A B F
Baton Rouge	* A	A
Layfayette	* A	
New Orleans	* A B C	
MAINE		
Portland	* A	B F
MARYLAND		
Baltimore	* A B	A B D
MASSACHUSETTS		
Boston	* A B	B D E F G
Fall River	* A B	A
Springfield	* A B	
Worcester	A	A B C D
MICHIGAN		
Detroit	* A D	A B D E F G
Grand Rapids	* A	A E
Lansing	A	
Marquette		
Saginaw	* D	A B E G

Diocese	*Communications Offices*	*Education Usage*
MINNESOTA		
Crookston	* A	A
Duluth	C D	A B
New Ulm	A	A
St. Cloud	* A	A B C G
St. Paul-Minneapolis	* A B	A B D F
Winona	* A	A F
MISSISSIPPI		
Natchez-Jackson	A	E
MISSOURI		
Jefferson City	* A D	G
Kansas City-St. Joseph	* A G	A F G
St. Louis	* A	A B D
Springfield-Cape Girardeau	A	
MONTANA		
Great Falls	A	A G
Helena	* A	A
NEBRASKA		
Grand Island	* D	Withdrew ETV
Lincoln	* A	
Omaha	* A D	B C G
NEVADA		
Reno		A B E
NEW HAMPSHIRE		
Manchester	A	B C
NEW JERSEY		
Camden	A	B
Paterson	* A B	A
Newark	D	
Trenton	* A	
NEW MEXICO		
Gallup		
Santa Fe		A E
NEW YORK		
Albany	* A B	A B
Brooklyn	* A	A C D E F
Buffalo		B D E F
New York	* A B	A C D E F G
Ogdensburg	* A B	B E G
Rochester	* D	B
Rockville Centre	* A B	A B D E F G
Syracuse	* A B	B D E

Diocese	*Communications Offices*	*Education Usage*
NORTH CAROLINA		
Raleigh	* A	
NORTH DAKOTA		
Bismarck	* A B	A
Fargo	A	
OHIO		
Cincinnati	* A B	A B C D E F
Cleveland	* A B D	B D E
Columbus	*	B
Steubenville	* C D	A B C E
Toledo	* A	A B D F
Youngstown	* A B	A D E F G
OKLAHOMA		
Oklahoma City-Tulsa	D	A
OREGON		
Baker	A	
Portland	* A B	A D F G
PENNSYLVANIA		
Allentown	A	B C D G
Altoona-Johnstown	A	A
Erie	* A	B D C
Greensburg	* A	A B C
Harrisburg	* A B	D
Philadelphia	* A D	A B D F
Pittsburgh	* A D	B E F
Scranton	* A B	A
RHODE ISLAND		
Providence	* A B	B E G
SOUTH CAROLINA		
Charleston	A	A B
SOUTH DAKOTA		
Rapid City	A D	A B
Sioux Falls	A	A E
TENNESSEE		
Nashville	* D	A D
TEXAS		
Amarillo	A	
Austin	A	B E
Beaumont	*	B E
Brownsville	* A D	
Corpus Christi	* D	B E

Diocese	*Communications Offices*	*Education Usage*
Dallas-Ft. Worth	* A	B D G
El Paso	A	
Galveston-Houston	* A D	A B E
San Angelo	* A	A
San Antonio	* A	B E
UTAH		
Salt Lake City	* A B	A D
VERMONT		
Burlington	A	A B D
VIRGINIA		
Richmond	* A	B D E
WASHINGTON		
Seattle	* A	A B
Spokane	A	B
Yakima		A
WEST VIRGINIA		
Wheeling	* B E	A B C G
WISCONSIN		
Green Bay	* A	A B F
La Crosse	A	A D E
Madison	* A	B E
Milwaukee	A	A B C D E
Superior	* A	A E
WYOMING		
Cheyenne	A	

Appendix G

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